

CLAIMS**What is claimed is:**

- 5 1. A method for providing single step log-on access to a subscriber of a computer network having a first and second area, said method including the steps of:

linking a Service Selection Gateway (SSG) Server to a Network Access Server (NAS), said NAS providing said subscriber with access to said first area, and said SSG
10 Server providing said subscriber with access to said second area;

linking said SSG Server to an Authentication Authorization and Accounting (AAA) Server;

15 intercepting and forwarding packets of data sent between said NAS and said AAA Server; and

manipulating information in said data packets to allow said SSG to automatically log said subscriber on to said SSG when said subscriber logs on to said NAS, without
20 requiring said subscriber to re-enter data already entered or launch a separate application.

2. A method for providing single step log-on access for a subscriber of a computer network having a first and second separate area, said method comprising the steps of:

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establishing a connection between said subscriber and a Network Access Server (NAS);

routing access-request packets from said NAS to a Service Selection Gateway (SSG) Server;

utilizing information in said access-request packets to initiate log-on for said subscriber to said second area;

routing said access-request packets from said SSG Server to an Authentication Authorization and Accounting (AAA) Server to initiate log-on for said subscriber to said first area; and

routing packets responsive to said access-request packets from said AAA Server back to said NAS via said SSG Server to complete log-on for said subscriber to said first and second areas.

3. A method for providing single-step log-on access to a subscriber of a computer network, said computer network differentiated into a plurality of areas, said method including the steps of:

sending an access-request packet from a Network Access Server (NAS) to a Service Selection Gateway (SSG) Server when said subscriber connects to said NAS, according to a communications protocol;

forwarding said access-request packet to an Authentication Authorization and Accounting (AAA) Server;

in reply to said access-request packet, sending an access-reply packet from said
5 AAA Server back to said SSG Server according to said communications protocol;

checking if said access-reply packet contains an IP address for said subscriber,
said IP address assigned by said AAA Server;

10 if said access-reply packet contains said IP address, then:

logging said subscriber on to said SSG Server with said IP address, if said access-
reply packet contains authorization from said AAA Server;

15 forwarding said access-reply packet to said NAS according to said
communications protocol; and

logging said subscriber on to said NAS with said IP address, if said forwarded
access-reply packet contains authorization from said AAA Server; or

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if said access-reply packet does not contain said IP address, then:

logging said subscriber on to said SSG server with a temporary dummy IP address,
if said access-reply packet contains authorization from said AAA Server;

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assigning a user identification number to said subscriber;

forwarding said access-reply packet and said user identification number to said NAS, according to said communications protocol;

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logging said subscriber on to said NAS with a genuine IP address, if said forwarded access-reply packet contains authorization from said AAA Server;

10 sending an accounting-start packet from said NAS to said SSG, said accounting-start packet containing said genuine IP address and said user identification number, according to said communications protocol;

reading said accounting-start packet to determine said genuine IP address of said subscriber;

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replacing said temporary dummy IP address with said genuine IP address on said SSG Server; and

forwarding said accounting-start packet to said AAA.

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4. The method of claim 3, wherein said communications protocol is the Remote Authentication Dial-In User Service (RADIUS) protocol;

5. The method of claim 4, wherein said forwarding step further comprises the sub-
25 step of:

writing said user identification number into said access-reply packet as a RADIUS Attribute.

- 5 6. The method of claim 5, wherein said RADIUS Attribute is a RADIUS Class Attribute.
7. The method of claim 3, wherein said user identification number is said temporary dummy IP address.

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